Amendments to The Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method executable by a computer of automatically generating access to at least one Business Application executed on a data processing system, wherein said Business Application is panel-driven and offers its services interacting with a user controlled by at least one Business Application panel and wherein said Business Application processes succeeding Business Application panels dependent on user interactions or user specified data or the contents of any kind of data base the Business Application is operating on, said computerized method comprising:

an analysis step of analyzing a description of said Business Application panels determining their input data and

a generation step generating according to said analysis step at least one procedure, called Transaction Method, said Transaction Method being callable from a program and said Transaction Method being generated to autonomously executing at least a part of said Business Application without interacting with said user;

wherein said generation step generates program code into said procedure, which, when executed, is providing required input data according to said analysis step to at least one sequence of succeeding Business Application panels, said sequence being within one execution of a Business Application, said sequence comprising at least one Business Application panel, and

wherein said generation step generates program code into said procedure, which, when executed, is performing a required

activity for launching said Business Application to autonomously process said at least one sequence of succeeding Business Application panels without interaction with said user.

2. (Currently Amended) The method according to Claim 1 further comprising generating said description of said Business Application panels prior to said analysis step wherein said Business Application panel description being independent from the system environment in which said Business Application is implemented and wherein the method encompasses:

a Business Application panel ~~modelling~~ modeling step, in which at least one of said Business Application panels, processed by said Business Application as input or output panels, called Business Application messages, is ~~modelled~~ modeled with respect to individual Business Application panel elements;

a Business Application message description generation step, in which at least one of said Business Application panels, processed by said Business Application as input or output panels, called Business Application messages, is parsed with respect to individual Business Application panel elements; and

in which for each ~~modelled~~ modeled Business Application message Transaction Record is generated storing said Business Application message description;

a User Interaction Graph generation step, in which the sequence of Business Application messages as processed by said Business Application is stored in at least one directed User Interaction Graph.

3. (Original) The method according to Claim 2 further comprising:

a Business Application message transition generation step in which a Business Application message transition action is generated to launch the Business Application to process a next Business Application panel after a current Business Application panel according to the sequence within the User Interaction Graph; and

in which said Business Application message transition action is stored within the generated Transaction Record during said Business Application message description generation step.

4. (Original) The method according to Claim 2 wherein said Business Application message description generation step stores descriptive information on the individual panel elements assembling said Business Application message with respect to type or length or position or indications which of the panel elements represent input and/or output elements within said Transaction Record.

5. (Original) The method according to Claim 2 wherein said Business Application panel description is generated by parsing and analyzing Business Application message implementations of the system environment said Business Application is implemented by interactions with a user of the data processing system gathering required Business Application panel description information.

6. (Currently Amended) The method according to Claim 2 wherein said Business Application message description generation step incorporates indications on specific characteristics into the generated Transaction Record encompassing

an Entry Transaction Record indication, characterizing a Business Application messages required for an initial start of a Business Application execution;

an External Transaction Record indication, characterizing a Business Application message being part of a second User Interaction Graph and thus describing a Business Application message sequence with a branch ~~form~~ from a first User Interaction Graph to said second User Interaction Graph;

an interactive Transaction Record indication, indicating a Business Application message representing a first Business Application message of an execution unit of succeeding Business Application messages within said User Interaction Graph encompassing at least said interactive Transaction Record; and

a preemptive Transaction Record indication, indicating a Business Application message being part of said execution unit of succeeding Business Application messages and not being a first Business Application message in said execution unit.

7. (Currently Amended) The method according to Claim 6 in which at least one Transaction Method is generated and provided to execute an execution unit of succeeding Business Application messages,

said Transaction Method is starting said execution of Business Application messages with an interactive Transaction Record;

said Transaction Method ~~is proceeding~~ proceeding with said execution of Business Application messages with all preemptive Transaction Records succeeding said interactive Transaction Record within the User Interaction Graph;

said Transaction Method is ending said execution of Business Application messages with a next interactive Transaction Record or with a last preemptive Transaction Record, if no Transaction Record is succeeding said last preemptive Transaction Record within the User Interaction Graph.

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8. (Currently Amended) The method according to Claims 7 wherein said generated Transaction Method

encompasses as Transaction Method input parameters all input elements of all Business Application messages ~~modelled~~ modeled by Transaction Records belonging to said execution unit and

encompasses as Transaction Method output parameters, all output elements of all Business Application messages ~~modelled~~ modeled by Transaction Records belonging to said execution unit.

9. (Original) The method according to Claim 1 extending the generated Transaction Method by communication relevant capabilities provided for

allowing the Transaction Method to be executed in a local data processing system and

allowing the Transaction Method to communicate with a remote data processing system via a computer network using anyone of the available communication protocols and

allowing the Transaction Method to control execution of said underlying Business Application on said remote data processing system.

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10. (Original) The method according to claim 1 in which the Transaction Method is generated as a method of a Transaction Object (TO) class in the sense of object-oriented technology for encapsulating and controlling said Business Application and said Transaction Method method is being called TO Method (TOM).

11. (Original) The method according claim 1 in which said Transaction Record is generated as Transaction Record class in the sense of object-oriented technology.

12. (Currently Amended) In a computer automatically generating access to at least one Business Application executed on a data processing system, wherein said Business Application is panel-driven and offers its services interacting with a user controlled by at least one Business Application panel and wherein said Business Application processes succeeding Business Application panels dependent on user interactions or user specified data or the contents of any kind of data base the Business Application is operating on, an apparatus comprising:

means for analyzing a description of said Business Application panels determining their input data and

means for generating at least one Transaction Method according to said analysis, said Transaction Method being callable from a program and said Transaction Method being generated to autonomously execute at least a part of said Business Application without interacting with said user;

wherein said means for generating includes program code in said procedure, which, when executed, is providing required input data according to analysis by said means for analysis to at least one sequence of succeeding Business Application panels, said sequence being within one execution of a Business Application, said sequence comprising at least one Business Application panel, and

wherein said means for generating includes program code in said procedure, which, when executed, is performing a required activity for launching said Business Application to autonomously process said at least one sequence of succeeding Business Application panels without interaction with said user.

13. (Currently Amended) The apparatus according to Claim 12 wherein said means for generating generates a Business Application panel description of said Business Application panels prior to analysis by said means for ~~analysing~~ analyzing wherein said Business Application panel description being independent from the system environment in which said Business Application is implemented and wherein the apparatus includes:

a Business Application panel ~~modelling~~ modeling means in which at least one of said Business Application panels, processed by said Business Application as input or output panels, is ~~modelled~~ modeled into Business Application messages with respect to individual Business Application panel elements;

a Business Application message description generation means in which at least one of said Business Application panels, processed by said Business Application as input or output panels, is parsed into Business Application messages with respect to individual Business Application panel elements; and

in which for each ~~modelled~~ modeled Business Application message, a Transaction Record is generated storing a Business Application message description; and

a User Interaction Graph generation means, in which a sequence of processed Business Application messages is stored in at least one directed User Interaction Graph.

14. (Original) The apparatus according to Claim 13 wherein said apparatus further encompasses:

a Business Application message transition generation means, in which a Business Application message transition action is generated to launch the Business Application to process a next Business Application panel after a current Business Application panel according to the sequence within the User Interaction Graph; and

in which said Business Application message transition action is stored within the generated Transaction Record by said Business Application message description generation means.

15. (Original) The apparatus according to Claim 13 wherein said Business Application message description generation means stores descriptive information on the individual panel elements assembling said Business Application message with respect to type or length or position or indications which of the panel elements represent input and/or output elements within said Transaction Record.

16. (Original) The apparatus according to Claim 13 wherein said Business Application panel description is generated by parsing and analyzing Business Application message implementations of the system environment, said Business Application being implemented by interactions with a user of the data processing system gathering required Business Application panel description information.

17. (Original) The apparatus according to Claim 13 wherein said Business Application message description generation means incorporates indications on specific characteristics into the generated Transaction Record encompassing:

an Entry Transaction Record indication, characterizing a Business Application messages required for an initial start of a Business Application execution;

an External Transaction Record indication, characterizing a Business Application message being part of a second User Interaction Graph and thus describing a Business Application message sequence with a branch from a first User Interaction Graph to said second User Interaction Graph;

an interactive Transaction Record indication, indicating a Business Application message representing a first Business Application message of an execution unit of succeeding Business Application messages within said User Interaction Graph encompassing at least said interactive Transaction Record; and

a preemptive Transaction Record indication, indicating a Business Application message being part of said execution unit of succeeding Business Application messages and not being a first Business Application message in said execution unit.

18. (Currently Amended) The apparatus according to Claim 17 in which at least one Transaction Method is generated and provided to execute an execution unit of succeeding Business Application messages,

said Transaction Method is starting said execution of Business Application messages with an interactive Transaction Record;

said Transaction Method ~~is proceeding~~ proceeding with said execution of Business Application messages with all preemptive Transaction Records succeeding said interactive Transaction Record within the User Interaction Graph;

said Transaction Method is ending said execution of Business Application messages with a next interactive Transaction Record or with a last preemptive Transaction Record if no Transaction Record is succeeding said last preemptive Transaction Record within the User Interaction Graph.

19. (Currently Amended) The apparatus according to Claims 18 wherein said generated Transaction Method:

encompasses as Transaction Method input parameters, all input elements of all Business Application messages ~~modelled~~ modeled by Transaction Records belonging to said execution unit; and

encompasses as Transaction Method output parameters, all output elements of all Business Application messages ~~modelled~~ modeled by Transaction Records belonging to said execution unit.

20. (Original) The apparatus according to Claim 12 extending the generated Transaction Method by communication relevant capabilities provided for

allowing the Transaction Method to be executed in a local data processing system and

allowing the Transaction Method to communicate with a remote data processing system via a computer network using anyone of the available communication protocols and

allowing the Transaction Method to control execution of said underlying Business Application on said remote data processing system.

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21. (Original) The apparatus according to claim 12 in which the Transaction Method is generated as a Transaction Object class of object-oriented technology for encapsulating and controlling said Business Application.

22. (Original) The apparatus according claim 12 in which said Transaction Record is generated as a Transaction Record class of object-oriented technology.

23. (Currently Amended) A program storage device readable by a machine tangibly embodying at least one program of instructions executable by the machine to perform a method of automatically generating access to at least one Business Application executed on a data processing system, wherein said Business Application is panel-driven and offers its services interacting with a user controlled by at least one Business Application panel and wherein said Business Application processes succeeding Business Application panels dependent on user interactions or user specified data or the contents of any kind of data base the Business Application is operating on, said method comprising:

an analysis step of analyzing a description of said Business Application panels determining their input data and

a generation step generating according to said analysis step at least one procedure, called Transaction Method, said Transaction Method being callable from a program and said Transaction Method being generated to autonomously executing at least a part of said Business Application without interacting with said user;

wherein said generation step generates program code into said procedure, which, when executed, is providing required input data according to said analysis step to at least one sequence of succeeding Business Application panels, said sequence being within one execution of a Business Application, said sequence comprising at least one Business Application panel, and

wherein said generation step generates program code into said procedure, which, when executed, is performing a required activity for launching said Business Application to autonomously process said at least one sequence of succeeding Business Application panels without interaction with said user.

24. (Currently Amended) The program storage device according to Claim 23 further comprising generating said description of said Business Application panels prior to said analysis step wherein said Business Application panel description being independent from the system environment in which said Business Application is implemented and wherein the method encompasses:

a Business Application panel ~~modelling~~ modeled step, in which at least one of said Business Application panels, processed by said Business Application as input or output panels, called Business Application messages, is ~~modelled~~ modeled with respect to individual Business Application panel elements;

a Business Application message description generation step, in which at least one of said Business Application panels, processed by said Business Application as input or output panels, called Business Application messages, is parsed with respect to individual Business Application panel elements; and

in which for said ~~modelled~~ modeled Business Application message a Transaction Record is generated storing said Business Application message description;

a User Interaction Graph generation step, in which the sequence of Business Application messages as processed by said Business Application is stored in at least one directed User Interaction Graph.

25. (Original) The program storage device according to Claim 24 further comprising:

a Business Application message transition generation step in which a Business Application message transition action is generated to launch the Business Application to process a next Business Application panel after a current Business Application panel according to the sequence within the User Interaction Graph; and

in which said Business Application message transition action is stored within the generated Transaction Record during said Business Application message description generation step.

26. (Original) The program storage device according to Claim 24 wherein said Business Application message description generation step stores descriptive information on the individual panel elements assembling said Business Application message with respect to type or length or position or indications which of the panel elements represent input and/or output elements within said Transaction Record.

27. (Original) The program storage device according to Claim 24 wherein said Business Application panel description is generated by parsing and analyzing Business Application message implementations of the system environment said Business Application is implemented by interactions with a user of the data processing system gathering required Business Application panel description information.

28. (Currently Amended) The program storage device according to Claim 24 wherein said Business Application message description generation step incorporates indications on specific characteristics into the generated Transaction Record encompassing

an Entry Transaction Record indication, characterizing a Business Application messages required for an initial start of a Business Application execution;

an External Transaction Record indication, characterizing a Business Application message being part of a second User Interaction Graph and thus describing a Business Application message sequence with a branch ~~form~~ from a first User Interaction Graph to said second User Interaction Graph;

an interactive Transaction Record indication, indicating a Business Application message representing a first Business Application message of an execution unit of succeeding Business Application messages within said User Interaction Graph encompassing at least said interactive Transaction Record; and

a preemptive Transaction Record indication, indicating a Business Application message being part of said execution unit of succeeding Business Application messages and not being a first Business Application message in said execution unit.

29. (Currently Amended) The program storage device according to Claim 28 in which at least one Transaction Method is generated and provided to execute an execution unit of succeeding Business Application messages,

said Transaction Method is starting said execution of Business Application messages with an interactive Transaction Record;

said Transaction Method ~~is proceeding~~ proceeding with said execution of Business Application messages with all preemptive Transaction Records succeeding said interactive Transaction Record within the User Interaction Graph;

said Transaction Method is ending said execution of Business Application messages with a next interactive Transaction Record or with a last preemptive Transaction Record, if no Transaction Record is succeeding said last preemptive Transaction Record within the User Interaction Graph.

30. (Currently Amended) The program storage device according to Claims 29 wherein said generated Transaction Method

encompasses as Transaction Method input parameters all input elements of all Business Application messages ~~modelled~~ modeled by Transaction Records belonging to said execution unit and

encompasses as Transaction Method output parameters, all output elements of all Business Application messages ~~modelled~~ modeled by Transaction Records belonging to said execution unit.

31. (Original) The program storage device according to Claim 23 extending the generated Transaction Method by communication relevant capabilities provided for

allowing the Transaction Method to be executed in a local data processing system and

allowing the Transaction Method to communicate with a remote data processing system via a computer network using anyone of the available communication protocols and

allowing the Transaction Method to control execution of said underlying Business Application on said remote data processing system.

32. (Original) The program storage device according to claim 23 in which the Transaction Method is generated as a method of a Transaction Object class of object-oriented technology for encapsulating and controlling said Business Application.

33. (Original) The program storage device according claim 23 in which said Transaction Record is generated as Transaction Record class of object-oriented technology.

34. (Currently Amended) A computerized method of executing on a data processing system at least one Business Application, wherein said Business Application is panel-driven and offers its services interacting with a user controlled by at least one Business Application panel and wherein said Business Application processes succeeding Business Application panels dependent on user interactions or user specified data or the contents of any kind of data base the Business Application is operating on, said computerized method comprising:

a Transaction Method called from a program, said Transaction Method is autonomously executing at least a part of said Business Application without interacting with said user,

wherein said Transaction Method is autonomously providing required input data to at least one sequence of succeeding Business Application panels, said sequence being within one execution of a Business Application, and

wherein said Transaction Method is performing the required activity for launching said Business Application to process, after a current Business Application panel, a next Business Application panel in said Business Application panel sequence without interaction with said user.

35. (Currently Amended) The method according Claim 34 wherein said Transaction Method includes handling Business Application messages with respect to individual Business Application panel elements based upon Transaction Records having Business ~~Business~~ Application message descriptions and

wherein said Transaction Method launches the Business Application to process, succeeding a current Business Application panel, a next Business Application panel according to a Business Application message transition action.

36. (Currently Amended) The method according Claim 34 wherein said Transaction Method executes an execution unit of succeeding Business Application messages;

starting said execution of Business Application messages with an interactive Transaction Record indicating a Business Application message representing a first Business Application message of said execution unit of succeeding Business Application messages;

proceeding said execution of Business Application messages with all preemptive Transaction Records, ~~specifiying~~ specifying Business Application messages being part of said execution unit of succeeding Business Application messages and not being a first Business Application message in said execution unit; and

ending said execution of Business Application messages with a next interactive Transaction Record or with a last preemptive Transaction Record, if no Transaction Record is succeeding said last preemptive Transaction Record within said execution unit of succeeding Business Application messages.

37. (Original) The method according to Claim 34 wherein said Transaction Method is being executed in a local data processing system and

wherein said Transaction Method communicates with a remote data processing system via a computer network and

wherein said Transaction Method controls execution of said underlying Business Application on said remote data processing system.

38. (Original) An apparatus for executing on a data processing system at least one Business Application, wherein said Business Application is panel-driven and offers its services interacting with a user controlled by at least one Business Application panel and wherein said Business Application processes succeeding Business Application panels dependent on user interactions or user specified data or the contents of any kind of data base the Business Application is operating on, said apparatus comprising:

a Transaction Method means called from a program for autonomously executing at least a part of said Business Application without interacting with said user,

wherein said Transaction Method means includes means for autonomously providing required input data to at least one sequence of succeeding Business Application panels, and

a1 wherein said Transaction Method means includes means for performing the required activity for launching said Business Application to process, after a current Business Application panel, a next Business Application panel in said Business Application panel sequence without interaction with said user.

39. (Currently Amended) The apparatus according Claim 38 wherein said Transaction Method means includes means for handling Business Application messages with respect to individual Business Application panel elements based upon Transaction Records having Business ~~Business~~ Application message descriptions, and

wherein said Transaction Method means launches the Business Application to process, succeeding a current Business Application panel, a next Business Application panel according to a Business Application message transition action.

40. (Currently Amended) The apparatus according Claim 38 wherein said Transaction Method means executes an execution unit of succeeding Business Application messages, said execution unit comprising:

means for starting said execution of Business Application messages with an interactive Transaction Record indicating a Business Application message representing a first Business Application message of said execution unit of succeeding Business Application messages;

means for proceeding said execution of Business Application messages with all preemptive Transaction Records, ~~specifiying~~ specifying Business Application messages being part of said execution unit of succeeding Business Application messages and not being a first Business Application message in said execution unit; and

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means for ending said execution of Business Application messages with a next interactive Transaction Record or with a last preemptive Transaction Record, if no Transaction Record is succeeding said last preemptive Transaction Record within said execution unit of succeeding Business Application messages.

41. (Original) The apparatus according to Claim 38 wherein said Transaction Method means is being executed in a local data processing system and

wherein said Transaction Method means communicates with a remote data processing system via a computer network and

wherein said Transaction Method means controls execution of said underlying Business Application on said remote data processing system.

42. (Currently Amended) A program storage device readable by a machine tangibly embodying at least one program of instructions executable by the machine to perform method of executing on a data processing system at least one Business Application, wherein said Business Application is panel-driven and offers its services interacting with a user controlled by at least one Business Application panel and wherein said Business Application processes succeeding Business Application panels dependent on user interactions or user specified data or the contents of any kind of data base the Business Application is operating on, said computerized method comprising:

a1 a Transaction Method called from a program, said Transaction Method is autonomously executing at least a part of said Business Application without interacting with said user,

wherein said Transaction Method is autonomously providing required input data to at least one sequence of succeeding Business Application panels, said sequence being within one execution of a Business Application, and

wherein said Transaction Method is performing the required activity for launching said Business Application to process, after a current Business Application panel, a next Business Application panel in said Business Application panel sequence without interaction with said user.

43. (Currently Amended) The program storage device according Claim 42 wherein said Transaction Method includes handling Business Application messages with respect to individual Business Application panel elements based upon Transaction Records having Business ~~Business~~ Application message descriptions and

wherein said Transaction Method launches the Business Application to process, succeeding a current Business Application panel, a next Business Application panel according to a Business Application message transition action.

44. (Currently Amended) The program storage device according Claim 43 wherein said Transaction Method executes an execution unit of succeeding Business Application messages;

starting said execution of Business Application messages with an interactive Transaction Record indicating a Business Application message representing a first Business Application message of said execution unit of succeeding Business Application messages;

proceeding said execution of Business Application messages with all preemptive Transaction Records, ~~specifiying~~ specifying Business Application messages being part of said execution unit of succeeding Business Application messages and not being a first Business Application message in said execution unit; and

ending said execution of Business Application messages with a next interactive Transaction Record or with a last preemptive Transaction Record, if no Transaction Record is succeeding said last preemptive Transaction Record within said execution unit of succeeding Business Application messages.

45. (Original) The program storage device according to Claim 43 wherein said Transaction Method is being executed in a local data processing system and

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wherein said Transaction Method communicates with a remote data processing system via a computer network and

wherein said Transaction Method controls execution of said underlying Business Application on said remote data processing system.